RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/031,841A_

Source: _PCT/10_

Date Processed by STIC: _2/14/05_

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PCT

RAW SEQUENCE LISTING   DATE: 02/14/2005
PATENT APPLICATION: US/10/031,841A   TIME: 07:44:07

Input Set : A:\Kni004cp.app
Output Set: N:\CRF4\02142005\J031841A.raw

```
 3 <110> APPLICANT: FRASER, DOUGLAS
 4        ST. GALLAY, STEVEN
 6 <120> TITLE OF INVENTION: HUMAN HOMOLOGUE OF BOVINE NEUROENDOCRINE SECRETORY PROTEIN,
 7        NESP55, POLYNUCLEOTIDES AND USES THEREOF LINKED WITH OBESITY
 9 <130> FILE REFERENCE: KNI-004CPUS
11 <140> CURRENT APPLICATION NUMBER: 10/031,841A
12 <141> CURRENT FILING DATE: 2002-01-22
14 <150> PRIOR APPLICATION NUMBER: PCT/EP00/06921
15 <151> PRIOR FILING DATE: 2000-07-20
17 <150> PRIOR APPLICATION NUMBER: GB 9917165.4
18 <151> PRIOR FILING DATE: 1999-07-22
20 <160> NUMBER OF SEQ ID NOS: 17
22 <170> SOFTWARE: PatentIn 3.2
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 2235
26 <212> TYPE: DNA
27 <213> ORGANISM: Homo sapiens
29 <220> FEATURE:
30 <221> NAME/KEY: CDS
31 <222> LOCATION: (3)...(761)
33 <400> SEQUENCE: 1
34 ga att cgg ctc gag gtg cct aag agg atg gat cgg agg tcc cgg gct      47
35    Ile Arg Leu Glu Val Pro Lys Arg Met Asp Arg Arg Ser Arg Ala
36     1             5                 10                  15
38 cag cag tgg cgc cga gct cgc cat aat tac aac gac ctg tgc ccg ccc     95
39 Gln Gln Trp Arg Arg Ala Arg His Asn Tyr Asn Asp Leu Cys Pro Pro
40                  20                  25                  30
42 ata ggc cgc cgg gca gcc acc gcg ctc ctc tgg ctc tcc tgc tcc atc    143
43 Ile Gly Arg Arg Ala Ala Thr Ala Leu Leu Trp Leu Ser Cys Ser Ile
44              35                  40                  45
46 gcg ctc ctc cgc gcc ctt gcc acc tcc aac gcc cgt gcc cag cag cgc    191
47 Ala Leu Leu Arg Ala Leu Ala Thr Ser Asn Ala Arg Ala Gln Gln Arg
48          50                  55                  60
50 gcg gct gcc caa cag cgc cgg agc ttc ctt aac gcc cac cac cgc tcc    239
51 Ala Ala Ala Gln Gln Arg Arg Ser Phe Leu Asn Ala His His Arg Ser
52      65                  70                  75
54 ggc gcc cag gta ttc cct gag tcc ccc gaa tcg gaa tct gac cac gag    287
55 Gly Ala Gln Val Phe Pro Glu Ser Pro Glu Ser Glu Ser Asp His Glu
56  80                  85                  90                  95
58 cac gag gag gca gac ctt gag ctg tcc ctc ccc gag tgc cta gag tac    335
59 His Glu Glu Ala Asp Leu Glu Leu Ser Leu Pro Glu Cys Leu Glu Tyr
60                 100                 105                 110
62 gag gaa gag ttc gac tac gag acc gag agc gag acc gag tcc gaa atc    383
```

```
63  Glu Glu Glu Phe Asp Tyr Glu Thr Glu Ser Glu Thr Glu Ser Glu Ile
64              115             120             125
66  gag tcc gag acc gac ttc gag acc gag cct gag acc gcc ccc acc act  431
67  Glu Ser Glu Thr Asp Phe Glu Thr Glu Pro Glu Thr Ala Pro Thr Thr
68              130             135             140
70  gag ccc gag acc gag cct gaa gac gat cgc ggc ccg gtg gtg ccc aag  479
71  Glu Pro Glu Thr Glu Pro Glu Asp Asp Arg Gly Pro Val Val Pro Lys
72      145             150             155
74  cac tcc acc ttc ggc cag tcc ctc acc cag cgt ctg cac gct ctc aag  527
75  His Ser Thr Phe Gly Gln Ser Leu Thr Gln Arg Leu His Ala Leu Lys
76  160             165             170             175
78  ttg cga agc ccc gac gcc tcc cca agt cgc gcg ccg ccc agc act cag  575
79  Leu Arg Ser Pro Asp Ala Ser Pro Ser Arg Ala Pro Pro Ser Thr Gln
80              180             185             190
82  gag ccc cag agc ccc agg gaa ggg gag gag ctc aag ccc gag gac aaa  623
83  Glu Pro Gln Ser Pro Arg Glu Gly Glu Glu Leu Lys Pro Glu Asp Lys
84              195             200             205
86  gat cca agg gac ccc gaa gag tcg aag gag ccc aag gag gag aag cag  671
87  Asp Pro Arg Asp Pro Glu Glu Ser Lys Glu Pro Lys Glu Glu Lys Gln
88              210             215             220
90  cgg cgt cgc tgc aag cca aag aag ccc acc cgc cgt gac gcg tcc ccg  719
91  Arg Arg Arg Cys Lys Pro Lys Lys Pro Thr Arg Arg Asp Ala Ser Pro
92      225             230             235
94  gag tcc cct tcc aaa aag gga ccc atc ccc atc cgg cgt cac           761
95  Glu Ser Pro Ser Lys Lys Gly Pro Ile Pro Ile Arg Arg His
96  240             245             250
98  taatggagga cgccgtccag attctccttg ttttcatgga ttcaggtgct ggagaatctg 821
99  gtaaaagcac cattgtgaag cagatgagga tcctgcatgt taatgggttt aatggagagg 881
100 gcggcgaaga ggacccgcag gctgcaagga gcaacagcga tggtgagaag gcaaccaaag 941
101 tgcaggacat caaaaacaac ctgaaagagg cgattgaaac cattgtggcc gccatgagca 1001
102 acctggtgcc ccccgtggag ctggccaacc ccgagaacca gttcagagtg gactacattc 1061
103 tgagtgtgat gaacgtgcct gactttgact tccctcccga attctatgag catgccaagg 1121
104 ctctgtggga ggatgaagga gtgcgtgcct gctacgaacg ctccaacgag taccagctga 1181
105 ttgactgtgc ccagtacttc ctggacaaga tcgacgtgat caagcaggct gactatgtgc 1241
106 cgagcgatca ggacctgctt cgctgccgtg tcctgacttc tggaatcttt gagaccaagt 1301
107 tccaggtgga caaagtcaac ttccacatgt ttgacgtggg tggccagcgc gatgaacgcc 1361
108 gcaagtggat ccagtgcttc aacgatgtga ctgccatcat cttcgtggtg ccagcagca 1421
109 gctacaacat ggtcatccgg gaggacaacc agaccaaccg cctgcaggag gctctgaacc 1481
110 tcttcaagag catctggaac aacagatggc tgcgcaccat ctctgtgatc ctgttcctca 1541
111 acaagcaaga tctgctcgct gagaaagtcc ttgctgggaa atcgaagatt gaggactact 1601
112 ttccagaatt tgctcgctac actactcctg aggatgctac tcccgagccc ggagaggacc 1661
113 cacgcgtgac ccgggccaag tacttcattc gagatgagtt tctgaggatc agcactgcca 1721
114 gtggagatgg cgtcactac tgctacccte atttcacctg cgctgtggac actgagaaca 1781
115 tccgccgtgt gttcaacgac tgccgtgaca tcattcagcg catgcacctt cgtcagtacg 1841
116 agctgctcta agaagggaac ccccaaattt aattaaagcc ttaagcacaa ttaattaaaa 1901
117 gtgaaacgta attgtacaag cagttaatca cccaccatag ggcatgatta acaaagcaac 1961
118 ctttcccttc ccccgagtga ttttgcgaaa cccccttttc ccttcagctt gcttagatgt 2021
119 tccaaattta gaaagcttaa ggcggcctac agaaaaagga aaaaggccca caaagttcc 2081
120 ctctcacttt cagtaaaaat aaataaaaca gcagcagcaa acaaataaaa tgaaataaaa 2141
```

Input Set : A:\Kni004cp.app
Output Set: N:\CRF4\02142005\J031841A.raw

```
121 gaaacaaatg aaataaatat tgtgttgtgc agcattaaaa aaaatcaaaa taaaaattaa 2201
122 atgtgagcaa aaaaaaaaaa aaaagggcgg ccgc                              2235
124 <210> SEQ ID NO: 2
125 <211> LENGTH: 253
126 <212> TYPE: PRT
127 <213> ORGANISM: Homo sapiens
129 <400> SEQUENCE: 2
130 Ile Arg Leu Glu Val Pro Lys Arg Met Asp Arg Arg Ser Arg Ala Gln
131  1               5                  10                  15
133 Gln Trp Arg Arg Ala Arg His Asn Tyr Asn Asp Leu Cys Pro Pro Ile
134             20                  25                  30
136 Gly Arg Arg Ala Ala Thr Ala Leu Leu Trp Leu Ser Cys Ser Ile Ala
137          35                  40                  45
139 Leu Leu Arg Ala Leu Ala Thr Ser Asn Ala Arg Ala Gln Gln Arg Ala
140       50                  55                  60
142 Ala Ala Gln Gln Arg Arg Ser Phe Leu Asn Ala His His Arg Ser Gly
143 65                  70                  75                  80
145 Ala Gln Val Phe Pro Glu Ser Pro Glu Ser Glu Ser Asp His Glu His
146                85                  90                  95
148 Glu Glu Ala Asp Leu Glu Leu Ser Leu Pro Glu Cys Leu Glu Tyr Glu
149             100                 105                 110
151 Glu Glu Phe Asp Tyr Glu Thr Glu Ser Glu Thr Glu Ser Glu Ile Glu
152          115                 120                 125
154 Ser Glu Thr Asp Phe Glu Thr Glu Pro Glu Thr Ala Pro Thr Thr Glu
155       130                 135                 140
157 Pro Glu Thr Glu Pro Glu Asp Asp Arg Gly Pro Val Val Pro Lys His
158 145                 150                 155                 160
160 Ser Thr Phe Gly Gln Ser Leu Thr Gln Arg Leu His Ala Leu Lys Leu
161                165                 170                 175
163 Arg Ser Pro Asp Ala Ser Pro Ser Arg Ala Pro Pro Ser Thr Gln Glu
164             180                 185                 190
166 Pro Gln Ser Pro Arg Glu Gly Glu Glu Leu Lys Pro Glu Asp Lys Asp
167          195                 200                 205
169 Pro Arg Asp Pro Glu Glu Ser Lys Glu Pro Lys Glu Glu Lys Gln Arg
170       210                 215                 220
172 Arg Arg Cys Lys Pro Lys Lys Pro Thr Arg Arg Asp Ala Ser Pro Glu
173 225                 230                 235                 240
175 Ser Pro Ser Lys Lys Gly Pro Ile Pro Ile Arg Arg His
176                245                 250
179 <210> SEQ ID NO: 3
180 <211> LENGTH: 4
181 <212> TYPE: PRT
182 <213> ORGANISM: Bovine Sp.
184 <400> SEQUENCE: 3
185 Leu Ser Ala Leu
186  1
189 <210> SEQ ID NO: 4
190 <211> LENGTH: 8
191 <212> TYPE: PRT
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        Input Set : A:\Kni004cp.app
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192 <213> ORGANISM: Bovine Sp.
194 <400> SEQUENCE: 4
195 Gly Ala Ile Pro Ile Arg Arg His
196 1   5
199 <210> SEQ ID NO: 5
200 <211> LENGTH: 4
201 <212> TYPE: PRT
202 <213> ORGANISM: Homo sapiens
204 <400> SEQUENCE: 5
205 Leu His Ala Leu
206 1
209 <210> SEQ ID NO: 6
210 <211> LENGTH: 8
211 <212> TYPE: PRT
212 <213> ORGANISM: Homo sapiens
214 <400> SEQUENCE: 6
215 Gly Pro Ile Pro Ile Arg Arg His
216 1   5
219 <210> SEQ ID NO: 7
220 <211> LENGTH: 4
221 <212> TYPE: PRT
222 <213> ORGANISM: Homo sapiens
224 <400> SEQUENCE: 7
225 Ser Phe Leu Asn
226 1
229 <210> SEQ ID NO: 8
230 <211> LENGTH: 4
231 <212> TYPE: PRT
232 <213> ORGANISM: Homo sapiens
234 <400> SEQUENCE: 8
235 Pro Ser Lys Lys
236 1
239 <210> SEQ ID NO: 9
240 <211> LENGTH: 4
241 <212> TYPE: PRT
242 <213> ORGANISM: Homo sapiens
244 <400> SEQUENCE: 9
245 Met Asp Arg Arg
246 1
249 <210> SEQ ID NO: 10
250 <211> LENGTH: 4
251 <212> TYPE: PRT
252 <213> ORGANISM: Homo sapiens
254 <400> SEQUENCE: 10
255 Ala Thr Ala Leu
256 1
259 <210> SEQ ID NO: 11
260 <211> LENGTH: 64
261 <212> TYPE: PRT

```
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                PATENT APPLICATION:  US/10/031,841A    TIME: 07:44:07

                    Input Set : A:\Kni004cp.app
                    Output Set: N:\CRF4\02142005\J031841A.raw
```

```
      262 <213> ORGANISM: Homo sapiens
      264 <220> FEATURE:
      265 <221> NAME/KEY: MOD_RES
      266 <222> LOCATION: (1)..(30)
      267 <223> OTHER INFORMATION: any amino acid, which may or may not be present
      269 <220> FEATURE:
      270 <221> NAME/KEY: MOD_RES
      271 <222> LOCATION: (35)..(64)
      272 <223> OTHER INFORMATION: any amino acid, which may or may not be present
      274 <400> SEQUENCE: 11
W--> 275 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      276 1               5                   10                  15
      278 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu His
      279             20                  25                  30
      281 Ala Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      282         35                  40                  45
      284 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      285     50                  55                  60
      288 <210> SEQ ID NO: 12
      289 <211> LENGTH: 68
      290 <212> TYPE: PRT
      291 <213> ORGANISM: Homo sapiens
      293 <220> FEATURE:
      294 <221> NAME/KEY: MOD_RES
      295 <222> LOCATION: (1)..(30)
      296 <223> OTHER INFORMATION: any amino acid, which may or may not be present
      298 <220> FEATURE:
      299 <221> NAME/KEY: MOD_RES
      300 <222> LOCATION: (39)..(68)
      301 <223> OTHER INFORMATION: any amino acid, which may or may not be present
      304 <400> SEQUENCE: 12
W--> 305 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      306 1               5                   10                  15
      308 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Pro
      309             20                  25                  30
      311 Ile Pro Ile Arg Arg His Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      312         35                  40                  45
      314 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      315     50                  55                  60
      317 Xaa Xaa Xaa Xaa
      318 65
      321 <210> SEQ ID NO: 13
      322 <211> LENGTH: 11
      323 <212> TYPE: PRT
      324 <213> ORGANISM: Homo sapiens
      326 <400> SEQUENCE: 13
      327 Gln Arg Leu His Ala Leu Lys Leu Arg Ser Pro
      328 1               5                   10
      331 <210> SEQ ID NO: 14
```

```
         RAW SEQUENCE LISTING ERROR SUMMARY       DATE: 02/14/2005
         PATENT APPLICATION:  US/10/031,841A      TIME: 07:44:08

            Input Set : A:\Kni004cp.app
            Output Set: N:\CRF4\02142005\J031841A.raw
```

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:11;  Xaa Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,
Seq#:11;  Xaa Pos.  23,24,25,26,27,28,29,30,35,36,37,38,39,40,41,42,43,44,45
Seq#:11;  Xaa Pos.  46,47,48,49,50,51,52,53,54,55,56,57,58,59,60,61,62,63,64
Seq#:12;  Xaa Pos.  1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22
Seq#:12;  Xaa Pos.  23,24,25,26,27,28,29,30,39,40,41,42,43,44,45,46,47,48,49
Seq#:12;  Xaa Pos.  50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68
Seq#:16;  Xaa Pos.  1,2,3,4,5,6,7,8,15,17,18,57,58,68,71,80,87,91,92,93,94,95
Seq#:16;  Xaa Pos.  98,99,101,103,109,112,120,122,124,133,138,139,153,154,161
Seq#:16;  Xaa Pos.  162,165,173,176,194,202,203,204,217,223,224,225,227,228
Seq#:16;  Xaa Pos.  240,248,250
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Input Set : **A:\Kni004cp.app**
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```
L:275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
M:341 Repeated in SeqNo=11
L:305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
M:341 Repeated in SeqNo=12
L:567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
M:341 Repeated in SeqNo=16
```